

## EPA Official Record

**Notes ID:** EAA7865AD05A0AEC89A2F9C073CC3B5F

**From:** "Moss, Jacob E" <MossJE@state.gov>

**To:** Anne Riederer/DC/USEPA/US@EPA; Carlos Nunez/RTP/USEPA/US@EPA; Douglas Mckinney/RTP/USEPA/US@EPA; Bob Thompson/RTP/USEPA/US@EPA; Jim Jetter/RTP/USEPA/US@EPA; Peter DeCarlo/DC/USEPA/US@EPA

**Delivered Date:** 01/20/2011 01:08 PM EST

**Subject:** RE: Draft ORD Cookstove Research Plan - Competition Section

Anne, thanks for forwarding here, and yes, please use my State.gov email.

I'm just replying to those of you in ORD who were at the DOE mtgs plus Bob T. I was really glad that so many of you were there to hear those various discussions. My quick 2 thoughts are:

1. I don't want to get too deeply in the middle of ORD discussions, unless everyone asks. But I will inevitably temper things with my preconceptions, which are useful of course. But part of the beauty of ORD's engagement is that you guys have a wide range of perspectives that I don't have, and will come up with all sorts of ideas that I wouldn't (like yours in this email, or LCA stuff, or the competition idea originally, or the animal and human exposure studies, or....).

2. You may want to take some of these ideas to the different Working Groups and get their thoughts. A quick win for them -- advising EPA on its investment. But you may also find that others agree or have an interest in aligning their investments around what you're planning. So -- just as an example -- maybe someone's developing a sensor, but more from the TE side and needs EPA's monitoring expertise. Or any version of that for any of the streams of thought Anne noted. But you may find that you are able to take an idea that seems hard to justify as an isolated investment (in general, or for ORD specifically) makes sense in coordination/partnership with other orgs.

Jacob

-----Original Message-----

From: Riederer.Ann@epamail.epa.gov

[mailto:Riederer.Ann@epamail.epa.gov]

Sent: Thursday, January 20, 2011 12:14 PM

To: Moss, Jacob E

Subject: Fw: Draft ORD Cookstove Research Plan - Competition Section

hi jacob, just in case you aren't checking EPA email anymore...cheer,s  
anne

Anne Riederer ScD

AAAS Science and Technology Policy Fellow

Office of Research and Development

U.S. Environmental Protection Agency

Tel. (202) 564-3395

----- Forwarded by Anne Riederer/DC/USEPA/US on 01/20/2011 12:14 PM

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From: Anne Riederer/DC/USEPA/US  
To: Carlos Nunez/RTP/USEPA/US@EPA, Jacob Moss/DC/USEPA/US@EPA, LCordes@unfoundation.org  
Cc: Alan Vette/RTP/USEPA/US@EPA, Bill Linak/RTP/USEPA/US@EPA, Bob Thompson/RTP/USEPA/US@EPA, Bryan Bloomer/DC/USEPA/US@EPA, Dan Costa/RTP/USEPA/US@EPA, David Diaz-Sanchez/RTP/USEPA/US@EPA, Davidd Kryak/RTP/USEPA/US@EPA, Douglas Mckinney/RTP/USEPA/US@EPA, Frank Princiotta/RTP/USEPA/US@EPA, Hale Thurston/CI/USEPA/US@EPA, Ian Gilmour/RTP/USEPA/US@EPA, Jim Jetter/RTP/USEPA/US@EPA, John Vandenberg/RTP/USEPA/US@EPA, Joseph Fiksel/CI/USEPA/US@EPA, Laura Kolb/DC/USEPA/US@EPA, Maryann Curran/CI/USEPA/US@EPA, miller.andy@epa.gov, Norma Lewis/CI/USEPA/US@EPA, Peter DeCarlo/DC/USEPA/US@EPA, Ravi Srivastava/RTP/USEPA/US@EPA, Tim Watkins/RTP/USEPA/US@EPA, Brenda Doroski/DC/USEPA/US@EPA, John Mitchell/DC/USEPA/US@EPA  
Date: 01/20/2011 12:09 PM  
Subject: Draft ORD Cookstove Research Plan - Competition Section

Hi EPA cookstoves crew,

Not sure where the draft EPA/ORD cookstoves research plan lives right now, but we learned a lot about stove technologies at the DOE meeting last week, so I wanted to send some quick thoughts on the competition section of the plan. (Carlos, I'm still trying to get input on this from the Innovation Team-- stay tuned...been a busy few weeks with the Pathfinder grants)

- I like the idea of an international, student-based competition-- would get lots of mileage out of the education/training opportunity (perhaps this would be more worthwhile than any better widgets that might result)

- If EPA goes ahead with a stove competition, we might consider combining forces with DOE, Xprize (e.g. Jaykumar Menon, who was busy scribbling the outline of a new stove competition at the DOE workshop), possibly others; at a minimum, we wouldn't want the EPA competition to replicate or compete with others out there, e.g. the new cookstove Xprize of the Indian Government (  
<http://www.xprize.org/media-center/press-release/x-prize-govt-of-india-it-delhi-announce-partnership-to-create-global-com>  
)

- It looks like EPA's had at least one student stove competition (probably more; I didn't search thoroughly); what lessons have we learned from these?:  
[http://cfpub.epa.gov/ncer\\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/8825](http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/8825)

- But, I think a more important question is: do we really need a better stove? There are many good ones out there...isn't it just a matter of optimizing choice for local conditions/cooking habits? (Jacob, Leslie, Brenda, John, others might weigh in here).

So, I would suggest EPA focus its competition on:

a. robust/cheap field instruments for measuring CO, PM2.5 and other contaminants of health concern (would this be too high tech for a student competition?) - the exposure measurements are EPA's forte and probably not something that DOE or others would tackle

OR

b. simple thermoelectric fans that can work on a range of stoves (but DOE, RTI, others might have this covered)

OR

c. stove delivery systems (but USAID, microenterprise folks, and others would probably be better than EPA at doing this)

OR

d. MY RECOMMENDATION: a simple, user-friendly laptop or PC based computer model to optimize a cooking system for households in a given community, i.e. you would input information like local fuel types and costs, latitude/longitude (for solar cooking potential), median household income, median family size, cooking requirements for staple foods, cooking preferences, etc., then the program would optimize the design of an integrated cooking system comprised of an improved stove (wood or other), solar cooker (if feasible), retained heat cooker (the cheap, DIY type), water purification system (e.g. a stove or retained heat cooker that also purifies drinking water), and behavioral changes that would meet the optimization targets (e.g., cost per day for the average family's cooking and water purification needs, daily fuel consumption, etc.). Such a model could be developed in R or other open source programming language, or using the MS Excel Solver linear optimization add-in (free), or similar tool. A student-based Integrated Cooking System Optimization Modeling (ICSOM?) competition would have additional educational benefits in teaching basic optimization theory/programming (useful for a wide range of engineering and other applications) on top of the stove design & testing methods that a stove competition would. I think the need for such a planning model is urgent since there is a flood of new \$ going into putting improved stoves in communities. The model could "live" at the Global Alliance and PCIA websites (a free download to anyone) and EPA could help keep it fresh/useful by conducting empirical validation studies in Year 1, Year 2, etc.

Happy to discuss with anyone interested!

Cheers, Anne

Anne Riederer ScD  
AAAS Science and Technology Policy Fellow  
Office of Research and Development  
U.S. Environmental Protection Agency  
Tel. (202) 564-3395

From: Carlos Nunez/RTP/USEPA/US  
To: Alan Vette/RTP/USEPA/US@EPA, Davidd Kryak/RTP/USEPA/US@EPA,  
Bryan Bloomer/DC/USEPA/US@EPA, miller.andy@epa.gov, Dan  
Costa/RTP/USEPA/US@EPA, Maryann Curran/CI/USEPA/US@EPA,  
Norma Lewis/CI/USEPA/US@EPA, Joseph Fiksel/CI/USEPA/US@EPA,  
David Diaz-Sanchez/RTP/USEPA/US@EPA, Ian  
Gilmour/RTP/USEPA/US@EPA, Bill Linak/RTP/USEPA/US@EPA, Anne  
Riederer/DC/USEPA/US@EPA, Peter DeCarlo/DC/USEPA/US@EPA, Bob  
Thompson/RTP/USEPA/US@EPA, Jim Jetter/RTP/USEPA/US@EPA,  
Douglas McKinney/RTP/USEPA/US@EPA, Frank  
Princiotta/RTP/USEPA/US@EPA, Tim Watkins/RTP/USEPA/US@EPA,

John Vandenberg/RTP/USEPA/US@EPA, Ravi  
Srivastava/RTP/USEPA/US@EPA, Laura Kolb/DC/USEPA/US@EPA,  
Hale Thurston/CI/USEPA/US@EPA  
Date: 12/22/2010 11:21 AM  
Subject: Fw: Draft ORD Cookstove Research Plan - Version 1.4  
(CORRECTION IN RED!)

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Carlos M. Nunez  
Assistant Laboratory Director for Air, Climate, and Energy  
National Risk Management Research Laboratory

U.S. Environmental Protection Agency  
109 T.W. Alexander Drive  
(MD - E343-04)  
Research Triangle Park, NC 27711  
(919) 541-1156  
(919) 541-5227 Fax  
(919) 450-6044 cell  
(919) 518-6411 cell  
nunez.carlos@epa.gov

----- Forwarded by Carlos Nunez/RTP/USEPA/US on 12/22/2010 11:19 AM  
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From: Carlos Nunez/RTP/USEPA/US  
To: Alan Vette/RTP/USEPA/US@EPA, Davidd Kryak/RTP/USEPA/US@EPA,  
Bryan Bloomer/DC/USEPA/US@EPA, miller.andy@epa.gov, Dan  
Costa/RTP/USEPA/US@EPA, Maryann Curran/CI/USEPA/US@EPA,  
Norma Lewis/CI/USEPA/US@EPA, Joseph Fiksel/CI/USEPA/US@EPA,  
David Diaz-Sanchez/RTP/USEPA/US@EPA, Ian  
Gilmour/RTP/USEPA/US@EPA, Bill Linak/RTP/USEPA/US@EPA, Anne  
Riederer/DC/USEPA/US@EPA, Peter DeCarlo/DC/USEPA/US@EPA, Bob  
Thompson/RTP/USEPA/US@EPA, Jim Jetter/RTP/USEPA/US@EPA,  
Douglas McKinney/RTP/USEPA/US@EPA, Frank  
Princiotta/RTP/USEPA/US@EPA, Tim Watkins/RTP/USEPA/US@EPA,  
John Vandenberg/RTP/USEPA/US@EPA, Ravi  
Srivastava/RTP/USEPA/US@EPA, Laura Kolb/DC/USEPA/US@EPA,  
Hale Thurston/CI/USEPA/US@EPA  
Date: 12/21/2010 04:49 PM  
Subject: Draft ORD Cookstove Research Plan - Version 1.4

The deadline is gone (Dec-20), so I decided to send you the latest  
version which reflects the last comments/input/recommendations I  
received from:

Joseph Fiksel  
Andy Miller  
Maryann Curran  
Norma Lewis  
Anne Riederer  
Peter DeCarlo

As it stands, the research plan will not include any exposure related  
research.

I plan to send this version to OAR and Jacob for their review and

comment shortly. I hope that as we share this draft with them we continue to work deliberately on the following:

1. additional science questions related to health
2. ORD FTE (each L/C needs to provide a figure)
3. Additional work on the competition section (very weak.)
4. Finishing Appendices A and B
5. Input from L/Cs to complete a new section at the end of the document dealing with research that ORD could undertake if additional resources became available. Again, I can only do this if each L/C provides me with such information.

Please provide me with your input by JANUARY 5, 2011, or indicate that you are not providing additional comments.

I want to thank again those of you who have provided such valuable comments and recommendations!

[attachment "DRAFT RESEARCH PLAN - Version 1-4 clean.docx" deleted by Carlos Nunez/RTP/USEPA/US]

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Carlos M. Nunez  
Assistant Laboratory Director for Air, Climate, and Energy  
National Risk Management Research Laboratory

U.S. Environmental Protection Agency  
109 T.W. Alexander Drive  
(MD - E343-04)  
Research Triangle Park, NC 27711  
(919) 541-1156  
(919) 541-5227 Fax  
(919) 450-6044 cell  
(919) 518-6411 cell  
nunez.carlos@epa.gov

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